**The GfK Group Project Report
for the
Porter Novelli 2016 Smoker Follow-up Survey**

Submitted to:
Melissa Taylor
Porter Novelli

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GfK PROJECT DIRECTOR: Lisa Jackson
GfK ACCOUNT EXECUTIVE: Larry Osborn
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GfK Deliverable Authorization			
Printed Name	Signature	Date	Title
Sergei Rodkin, Ph.D.	*[signature]*	10/ 7/2016	VP, Government and Academic Research

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Study Design & Documentation

Introduction

The GfK Group (GfK, formerly Knowledge Networks) conducted the 2016 Smoker Follow-up Survey on behalf of Porter Novelli. Specifically, the study examines the attitudes and behaviors of smokers identified during the 2015 longitudinal study. The survey was conducted using sample from KnowledgePanel®.

Sample Definition

The target population consists of the following: non-institutionalized adults age 18 and over residing in the United States who were identified as smokers from the 2015 longitudinal study.

To sample the population, GfK sampled households from its KnowledgePanel, a probability-based web panel designed to be representative of the United States. The survey consisted of the main survey with the study-eligible respondents. To qualify for the main survey, a panel member must have been at least 18 years of age and a cigarette smoker according to the 2015 longitudinal study.

Data Collection Field Period & Survey Length

The data collection field periods were as follows:

Stage	Start Date	End Date
Main	8/26/2016	10/2/2016

Participants completed the main survey in 5 minutes (median).

Survey Completion and Sample Sizes

The number of respondents sampled and participating in the survey, the survey completion rate, and the incidence/eligibility rate are presented below.

Key Survey Response Statistics: Main Interview

N Sampled for Main Survey	N Completed	Completion Rate	Incidence Rate
1,018	858	84%	100%

Survey Cooperation Enhancements

As a standard, email reminders to non-responders were sent on day three of the field period. Additional email reminders to non-responders were sent on days 18, 27, 30, and 35.

Data File Deliverables and Descriptions

GfK prepared and delivered a fully formatted SPSS file containing the collected data, GfK demographic profile data, and the appropriate variable and value labels, as described below.

Data File Deliverables

Delivery Date	File Type	File Name	N Records
10/7/2016	SPSS	PorterNovelli_SmokerSurveyFollowUp2016_Client.sav	858

In addition, GfK prepared and delivered other deliverables as follows:

- Post-stratification statistical weights
- Demographic profile data for
  - All sampled respondents, including non-responders
  - All interviewed GfK panelists

Several supplemental variables are provided to assist the principal investigators in identifying cases that could potentially be of interest.

Please also note the following for the survey data file:

- When a respondent refused to answer a question, the code "-9" is used.
- The missing values have been recoded as the following: "Not asked" responses are recoded as system missing.

The table below shows the name and description of each of the supplemental, demographic, and other profile variables delivered to the client.

Supplemental Variables

Variable Name	Variable Description
CASEID	Case Identification Number
weight	Sample weights
weightpop	Population weights
TM_START	Date and time interview started
TM_FINISH	Date and time interview ended
DURATION	Duration of interview in minutes
PPAGE	Age
PPAGECAT	Age - 7 Categories
PPAGECT4	Age - 4 Categories
PPEDUC	Education (Highest Degree Received)
PPEDUCAT	Education (Categorical)
PPETHM	Race / Ethnicity
PPGENDER	Gender
PPHHHEAD	Household Head
PPHHSIZE	Household Size
PPHOUSE	Housing Type
PPINCIMP	Household Income
PPMARIT	Marital Status
PPMSACAT	MSA Status
PPREG4	Region 4 - Based on State of Residence
PPREG9	Region 9 - Based on State of Residence
PPRENT	Ownership Status of Living Quarters
PPSTATEN	State
PPT01	Presence of Household Members - Children 0 - 2
PPT25	Presence of Household Members - Children 2 - 5
PPT612	Presence of Household Members - Children 6 - 12
PPT1317	Presence of Household Members - Children 13 - 17
PPT18OV	Presence of Household Members - Adults 18+
PPWORK	Current Employment Status
PPNET	Household Internet Access

Key Personnel

Key personnel on the study include:

Mansour Fahimi – Senior Vice President & Chief Statistician of Sampling Statistics. M. Fahimi is based in Bethesda, MD.
Phone number: (240) 244-4570
Email: mansour.fahimi@gfk.com

Larry Osborn – Vice President, Government & Academic Research. L. Osborn is based in Chicago.
Phone number: (312) 281-2469
Email: larry.osborn@gfk.com

Lisa Jackson – Research Manager, Government & Academic Research. L. Jackson is based in Sunnyvale.
Phone number: (650) 285-6588
Email: Lisa.Jackson@gfk.com

GfK Methodology

Introduction

The GfK Group (formerly Knowledge Networks) is passionate about research in marketing, media, health, and social policy. We collaborate closely with client teams throughout the research process, while applying rigor in everything we do. We specialize in innovative online research that consistently gives leaders in business, government, and academia the confidence to make important decisions. GfK delivers affordable, statistically valid online research through KnowledgePanel® and leverages a variety of other assets, such as world-class advanced analytics, an industry-leading physician panel, an innovative platform for measuring online ad effectiveness, and a research-ready behavioral database of frequent supermarket and drug store shoppers.

GfK has recruited the first online research panel that is representative of the entire United States population. Panel members are randomly recruited through probability-based sampling, and households are provided with access to the Internet and hardware if needed.

GfK recruits panel members by using address-based sampling methods [previously GfK relied on random-digit dialing methods]. Once household members are recruited for the panel and assigned to a study sample, they are notified by email for survey taking, or panelists can visit their online member page for survey taking (instead of being contacted by telephone or postal mail). This allows surveys to be fielded very quickly and economically. In addition, this approach reduces the burden placed on respondents, since email notification is less intrusive than telephone calls, and most respondents find answering Web questionnaires more interesting and engaging than being questioned by a telephone interviewer. Furthermore, respondents have the convenience to choose what time of day to complete their assigned survey.

The GfK Group

The GfK Group has a strong tradition in working with sophisticated academic, government, and commercial researchers to provide high quality research, samples, and analyses. The larger GfK Group offers the fundamental knowledge for governmental agencies, academics, industries, industry, retailers, services companies and the media need to provide exceptional quality in research to make effective decisions. It delivers a comprehensive range of information and consultancy services. GfK is one of the leading survey research organizations worldwide, operating in more than 100 countries with over 13,000 research staff. In 2013, the GfK Group's sales amounted to EUR 1.49 billion.

For further information, visit our website: www.gfk.com.

KnowledgePanel Methodology Information

KnowledgePanel® is the largest online panel that relies on probability-based sampling techniques for recruitment; hence, the largest national sampling fame from which fully

representative samples can be generated to produce statistically valid inferences for study populations. Our panel provides samples with the highest level of representativeness available in online research for measurement of public opinions, attitudes, and behaviors. The panel was first developed in 1999 by Knowledge Networks, a GfK company. Panel members are randomly selected so that survey results can properly represent the U.S. population with a measurable level of accuracy, features that are not obtainable from non-probability panels (for comparisons of results from probability versus non-probability methods, see Yeager et al., 2011).

KnowledgePanel's recruitment process was originally based exclusively on a national Random Digit Dialing (RDD) sampling methodology. In order to improve the representation of the panel, GfK migrated to using an Address Based Sampling (ABS) methodology for selecting panel members in 2009. This probability-based sampling methodology improves population coverage, and provides a more effective sampling infrastructure for recruitment of hard-to-reach individuals, such as young adults and those from various minority groups. It should be noted that under the ABS recruitment, households without Internet connection are provided with a web-enabled device and free Internet service.

After initially accepting the invitation to join the panel, participants are asked to complete a short demographic survey (the initial *Core Profile Survey*); answers to which allow efficient panel sampling and weighting for future surveys. Completion of the core profile survey allows participants to become active panel members. As in the past, all respondents are provided the same privacy terms and confidentiality protections.

ABS Recruitment

The DSF-based sampling frame we use for address selection is enhanced with a series of refinements – such as the appendage of various ancillary data to each address – to facilitate complex stratification plans1. Taking advantage of such refinements, quarterly samples are selected using a disproportionate stratified sampling methodology across the following four strata:

1. Hispanic households with at least one 18 to 24 year-old
2. Remaining Hispanic households
3. Remaining households with at least one 18 to24 year-old
4. All remaining households

Adults from sampled households are invited to join KnowledgePanel through a series of mailings, including an initial invitation letter, a reminder postcard, and a subsequent follow-up letter. Given that a subset of physical addresses can be matched to a corresponding landline telephone number, about 5 weeks after the initial mailing, telephone refusal-conversion calls are made to nonresponding households for which a telephone number is matched. Invited households can join the panel by:

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[1] Fahimi, M. and D. Kulp (2009). "Address-Based Sampling – Alternatives for Surveys That Require Contacts with Representative Samples of Households." *Quirk's Marketing Research Review*, May 2009.

- Completing and mailing back a paper form in a postage-paid envelope

- Calling a toll-free hotline phone number maintained by GfK

- Going to a designated GfK website and completing the recruitment form online

During the initial recruitment survey, attempts are made to recruit every household member who is at least 13 years of age to become an active member. For teenage household members, consent is secured from a parent or legal guardian, and no direct communication with teenagers is attempted prior to obtaining consent. While surveys can be conducted with teens directly, in most instances teen surveys are conducted by first selecting a sample of active members who are parents. This parent route alternative, while slightly more expensive, makes it possible to reach a more representative sample of teens.

Household Member Recruitment

For all recruitment efforts, during the initial recruitment survey, all household members are enumerated. Following enumeration, attempts are made to recruit every household member who is at least 13 years old to participate in KnowledgePanel surveys. For household members aged 13 to 17, consent is collected from the parents or the legal guardian during the initial recruitment interview. If no consent is given, no further direct communication with the teenagers is attempted.

Survey Sampling from KnowledgePanel

Once panel members are recruited and profiled by taking our Core Profile Survey, they become eligible for selection for client surveys. Generally, the specific survey samples represent an equal probability selection method (EPSEM) sample from the panel for general population surveys. Customized stratified random sampling based on profile data can also be carried out as required by the study design.

The general sampling rule is to assign no more than one survey per week to individual members. Allowing for rare exceptions during some weeks, this limits a member's total assignments per month to four or six surveys. In certain cases, a survey sample calls for pre-screening, that is, members are drawn from a subsample of the panel (such as females, Republicans, grocery shoppers, etc.). In such cases, care is taken to ensure that all subsequent survey samples drawn that week are selected in such a way as to result in a sample that remains representative of the panel distributions.

For this survey, a nationally representative sample of U.S. adults (18 and older) who were previously identified as smokers in the 2015 longitudinal study was selected.

Survey Administration

Once assigned to a survey, members receive a notification email letting them know there is a new survey available for them to take. This email notification contains a link that sends them to

the survey questionnaire. No login name or password is required. The field period depends on the client's needs and can range anywhere from a few hours to several weeks.

After three days, automatic email reminders are sent to all non-responding panel members in the sample. If email reminders do not generate a sufficient response, an automated telephone reminder call can be initiated. The usual protocol is to wait at least three to four days after the email reminder before calling. To assist panel members with their survey taking, each individual has a personalized "home page" that lists all the surveys that were assigned to that member and have yet to be completed.

GfK also operates an ongoing modest incentive program to encourage participation and create member loyalty. Members can enter special raffles or can be entered into special sweepstakes with both cash rewards and other prizes to be won.

The typical survey commitment for panel members is one survey per week or four per month with duration of 10 to 15 minutes per survey. In the case of longer surveys, an additional incentive is typically provided.

Response Rates

As a member of the American Association of Public Opinion Researchers (AAPOR), GfK follows the AAPOR standards for response rate reporting. While the AAPOR standards were established for single survey administrations and not for multi-stage panel surveys; whoever, Callegaro and DiSogra (2008) have developed algorithms for calculations of response rates for KnowledgePanel surveys. Typically, completion rate for KnowledgePanel surveys is about 65% with possibility of minor variations due to survey length, topic, and other fielding characteristics. In contrast, virtually all surveys that employ non-probability online panels typically achieve completion rates that are in low single digits. This means aside from the fact that nonprobability panels are inherently not representative of any known populations, the effective size of KnowledgePanel (35,750 = 55,000 × 0.65) would be equivalent to a nonprobability panel with 1,787,500 members that on average secures completion rates close to 2%.

Sample Weighting

As detailed above, significant resources and infrastructure are devoted to the recruitment process for the KnowledgePanel (KP) so that our active panel members can properly represent the adult population of the U.S. This representation is not only achieved with respect to a broad set of geodemographic indicators, but also hard-to-reach adults – such as those without internet access or Spanish language dominant Hispanics – are recruited in proper proportions as well. Consequently, the raw distribution of KP mirrors that of the US adults fairly closely, baring occasional disparities that may emerge for certain subgroups due to differential attrition.

In spite of the above, for selection of general population samples from KP a patented methodology has been developed that ensures all samples behave as EPSEM. Briefly, this

methodology starts by weighting the pool of active members to the geodemographic benchmarks secured from the latest March supplement of the Current Population Survey (CPS) along several dimensions. Using the resulting weights as measure of size, in the next step a PPS (probability proportional to size) procedure is used to select study specific samples. It is the application of this PPS methodology with the imposed size measures that produces fully self-weighing samples from KP, for which each sample member can carry a design weight of unity. Moreover, in instances where a study design requires any form of oversampling of certain subgroups, such departures from an EPSEM design are accounted for by adjusting the design weights in reference to the CPS benchmarks for the population of interest.

The geodemographic benchmarks used to weight the active panel members for computation of size measures include:

- Gender (Male/Female)
- Age (18–29, 30–44, 45–59, and 60+)
- Race/Hispanic ethnicity (White/Non-Hispanic, Black/Non-Hispanic, Other/Non-Hispanic, 2+ Races/Non-Hispanic, Hispanic)
- Education (Less than High School, High School, Some College, Bachelor and beyond)
- Census Region (Northeast, Midwest, South, West)
- Household income (under $10k, $10K to <$25k, $25K to <$50k, $50K to <$75k, $75K to <$100k, $100K+)
- Home ownership status (Own, Rent/Other)
- Metropolitan Area (Yes, No)
- Internet Access (Yes, No)

Study-Specific Post-Stratification Weights

Once the study sample has been selected and the survey administered, and all the survey data are edited and made final, design weights are adjusted to account for any differential nonresponse that may have resulted during the field period. Depending on the specific target population for a given study, geodemographic distributions for the corresponding population are obtained from the CPS, the American Community Survey (ACS), or in certain instances from the weighted KP profile data. For this purpose an iterative proportional fitting (raking) procedure is used to produce the final weights. In the final step, calculated weights are examined to identify and, if necessary, trim outliers at the extreme upper and lower tails of the weight distribution. The resulting weights are then scaled to aggregate to the total sample size of all eligible respondents.

For this study, the following benchmark distributions of 18+ adult smokers from the 2015 longitudinal survey were used for the raking adjustment of weights:

- Gender (Male, Female) by Age (18-29, 30-44, 45-59, 60+)
- Race/Ethnicity (White/Non-Hispanic, Black/Non-Hispanic, Other/Non-Hispanic, Hispanic, 2+ Races/Non-Hispanic)

- Census Region (Northeast, Midwest, South, West) by Metropolitan Status (Metro/Non-Metro)
- Education (Less than High School, High School, Some College, Bachelor or higher)
- Household Income (under $25K, $25-$49,999, $50K-$74,999, $75K+)
- Household with Internet Access (Yes, No)

Detailed information on the demographic distributions of the benchmarks can be found in Appendix C.